REMARKS

Reconsideration of this application as amended is respectfully requested.

Claims 1-6, 8, 10, 12-13, and 17-18 stand rejected under 35 § U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,169,735 by Allen, Jr. et al. ("Allen") in view of U.S. Patent No. 6438612 by Ylonen et al ("Ylonen"). Claims 7, 9, 11, and 14-16 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. Claim 19 and 20 are allowed.

The Examiner has rejected Claims 1-6, 8, 10, 12-13, and 17-18 under 35 § U.S.C. 103(a) as being unpatentable over Allen in view of Ylonen. The Examiner states:

> Allen Jr. discloses buffering the plurality of IP packets received from the remote interworking function (col. 14 lines 19-39) for at least as long as a maximum delay variation; and outputting payloads to the plurality of received IP packets at the constant bit rate (col. 10 lines 4-22).
> Allen, Jr. et al. did not teach the CES being configured to establish a tunnel between a local interworking function and a remote interworking function; encapsulating data received at a constant bit rate at the local interworking function into a plurality of IP packets configured according to the CES, wherein the plurality of IP packets includes a first IP packet having a variable length as in claims 1, 17, and 18.
> Ylonen et al. teach that it is known to provide . . . establishing a tunnel between a local interworking function and a remote interworking function including the step of encapsulating data received at a constant bit rate at the local interworking function into a plurality of IP packets configured according to the CES, wherein the plurality of IP packets includes a first IP packet having a variable length as in claims 1, 17, and 18.
> It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the CES being configured to establish a tunnel between a local interworking function and a remote interworking function; encapsulating data received at a constant bit rate at the local interworking function into a plurality of IP packets configured according to the CES, wherein the plurality of IP packets includes a first IP packet having a variable length . . . because Ylonen et al. teach[es] the desirable added feature of providing secure transmission of data packets in a network having virtual routers and said added feature of secure transmission being desirable to achieve more efficient system operation in Allen Jr. et al.

(Office Action dated June 2, 2003, pp. 4-9)

However, applicants respectfully submit that claim 1 is not obvious under 35 U.S.C. § 103(a) in view of Allen and Ylonen. Claim 1 includes the following limitations:

> 1. A method comprising:
> configuring a circuit emulation service (CES) over an internet protocol (IP) network based on properties of the IP network, the CES being configured to establish a tunnel between a local interworking function and a remote interworking function;
> encapsulating data received at a constant bit rate at the local interworking function into a plurality of IP packets configured according to the CES, wherein the plurality of IP packets includes a first IP packet having a variable length; and
> transporting the IP packets from the local interworking function to the remote interworking function according to the CES.

(emphasis added).

In contrast, Allen discloses and suggests use ATM cells having a fixed length and that utilize pre-established point to point communication paths.

Allen discloses:

> An *Asynchronous Transfer Mode (ATM)-based* distributed virtual tandem switching system is provided in which a network of *ATM-based devices.*

(Allen, abstract) (emphasis added)

In the definition of **A**synchronous **T**ransfer **M**ode, the Techweb encyclopedia states:

ATM works by transmitting all traffic as fixed-length, 53-byte cells. (Web Page: http://www.techweb.com/encyclopedia/defineterm?term=atm&x=34&y=12)

Allen further discloses:

> [T]he ATM cell construction delay, when employing the AAL1 circuit emulation service, is fixed. As mentioned above, for 64 Kbps pulse code modulated (PCM) voice, it takes six milliseconds to fill an ATM cell with a single voice channel. The total echo path time is thus 12 milliseconds plus additional transit and buffering delays. For compressed voice, for example 32 Kbps using ADPCM, *the delay will be doubled to 24 milliseconds because it now takes twice as long to fill an ATM cell* with the speech data of a single voice channel.

(Allen, Col. 14 Lns. 30-40) (emphasis added).

The ATM cell construction delay time increases for the fixed sized ATM cells receiving compressed voice data because a relatively longer period of time elapses before the fixed size 53-byte ATM cell is full. Thus, Allen does not disclose or suggest the use of one or more IP packets having a variable length. In fact, Allen teaches away from the use of IP packets having a variable length and teaches the use of ATM cells having a fixed length to transport constant bit rate data.

Allen further explicitly teaches against encapsulating data into one or more IP packets having a variable length and transporting the IP packets from the local interworking function to the remote interworking function. Allen states that "it is wasteful for bursty data in IP packets to be encapsulated and transported by TDM circuits." (Allen, Col. 16 Lns. 63-64) Rather, Allen teaches terminating the IP packets and converting the data to be transported by fixed length ATM cells. (see Allen, Col. 16 Ln. 55 to Col. 17 Ln. 8) Allen explicitly teaches against encapsulating data into a plurality of IP packets and transporting the IP packets configured according to the circuit emulation service. Allen explicitly teaches converting the IP packets into fixed length ATM cells prior to transporting the constant bit rate data.

In contrast, Allen discloses an ATM-based distributed virtual tandem switching system employing a CES to transport voice, converting an origination trunk to ATM cells

and transmitting the voice within the ATM cells (see col. 6, lines 43-50). Moreover, Allen discloses a method of converting bursty data with IP packets to ATM connections and carrying the ATM connections by ATM network (see col. 16, line 55 to col. 17, line 8).

Therefore, Allen does not teach or suggest the limitations stated in claim 1 and, in fact, explicitly teaches away from the limitations stated in claim 1.

Ylonen discloses a method and arrangement for secure tunneling of data between virtual routers. Applicants respectfully submit that Ylonen does not disclose or even suggest limitations stated in claim 1. Ylonen does not disclose or suggest encapsulating or receiving data received at a constant bit rate. Ylonen is completely silent on transmitting the encapsulated data received at a constant bit rate in variable length IP packets. Ylonen is completely silent on transmitting the encapsulated data received at a constant bit rate in variable length IP packets. Ylonen is completely silent on using the disclosed secure tunnel in any manner with fixed length ATM cells.

Therefore, Ylonen does not teach or suggest the limitations in claim 1.

It is also respectfully submitted that Allen does not suggest a combination with Ylonen, and Ylonen does not suggest a combination with Allen because Allen specifically teaches away from such a combination. It would be impermissible hindsight to combine Allen with Ylonen based on applicants' own disclosure.

Therefore, in view of the above distinction, neither Allen nor Ylonen, individually or in combination, disclose each and every limitation of claim 1. Further, no suggestion or motivation exists in the references to combine the reference teachings and, in fact, the references explicitly teach away from such a combination. As such, claim 1, as amended, is not rendered obvious by Allen in view of Ylonen under 35 U.S.C. § 103(a).

Given that claims 2-16 depend from claim 1, applicants submit that claims 2-16 are not obvious over Allen in view of Ylonen.

Likewise, independent claim 17 includes the limitation "encapsulating data received at a constant bit rate at the local interworking function into a plurality of IP packets configured according to the CES, wherein the plurality of IP packets includes a first IP packet having a variable length." Independent claim 17 also includes the limitation "transporting the IP packets from the local interworking function to the remote interworking function according to the CES."

Therefore, in view of the above distinction, neither Allen nor Ylonen, individually or in combination, disclose each and every limitation of claim 17. As such, claim 17 is not rendered obvious by Allen in view of Ylonen under 35 U.S.C. § 103(a).

Likewise, independent claim 18 includes the limitation "encapsulate data received at a constant bit rate at the local interworking function into a plurality of IP packets configured according to the CES, wherein the plurality of IP packets includes a first IP packet having a variable length." Independent claim 18 also includes the limitation "transport the IP packets from the local interworking function to the remote interworking function according to the CES."

Therefore, in view of the above distinction, neither Allen nor Ylonen, individually or in combination, disclose each and every limitation of claim 18. As such, claim 18 is not rendered obvious by Allen in view of Ylonen under 35 U.S.C. § 103(a).

Conclusion

It is respectfully submitted that in view of the amendments and remarks set forth herein, the rejections and objections have been overcome. If there are any additional charges, please charge them to our Deposit Account No. 02-2666. If the Examiner feels a telephone conversation would be helpful, then the Examiner is encouraged to call me at 408-720-8300.

Respectfully submitted,
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